



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

D4766-041-BENT
Job Sheet 201845



Part No: D4766-041-BENT

Job Qty: 6 pcs

Part Name: Extrusion Bent



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 10/16/19

Job Tracking No:

Due Date: 10/23/19

Created By: Marie Lajeunesse

Type: Stock

Description:

Note: DWG D4766 REV.F IPP REV:A 16.05.16 NEW ISSUE DD VERF:JLM

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
110	Skidtubes - Bend - 1	6 pcs	10/23/19	10/23/19	0.00	8.96	Skidtubes - Bend		<i>MLA</i>
120	QC 5	6 pcs	10/23/19	10/23/19	0.00	0.00	QC 5 - 10		
							QC 5 - 12		
							QC 5 - 17		
							QC 5 - 18		<i>BE</i>
							QC 5 - 19		
							QC 5 - 22		
							QC 5 - 24		
							QC 5 - 3		
							QC 5 - 43		
							QC 5 - 49		
							QC 5 - 51		
							QC 5 - 58		
							QC 5 - 68		
							QC 5 - 9		
							QC 5 - 50		
							QC 5 - 30		
							QC 5 - 40		
							QC 5 - 61		
							QC 5 - 81		
130	Packaging 3-1 - Stock - B4B	6 pcs	10/23/19	10/23/19	0.00	0.00	Packaging 3 - 1 - B4B		
							Packaging 3 - 2 - B4B		
							Packaging 3 - 3 - B4B		
							Packaging 3 - 4 - B4B		
							Packaging 3 - 5 - B4B		
							Packaging 3 - 6 - B4B		
							Packaging 3 - 7 - B4B		
							Packaging 3 - 8 - B4B		
							Packaging 3 - 9 - B4B		
							Packaging 3 - 10 - B4B		
							Packaging 3 - 11 - B4B		



Container No: S223456



Part: D4766 - 041 - BENT

Job No: 201845

Serial No/Batch: S223456

Revision: F

Inspector:

Exp Date:

Instructions: Various STC's

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 813 632-5200
Email: sales@dartaero.com
www.dartaero.com

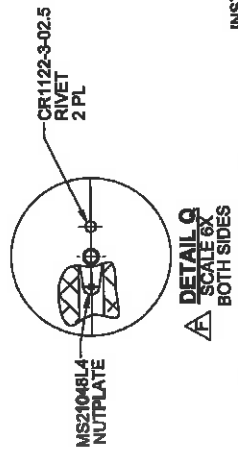
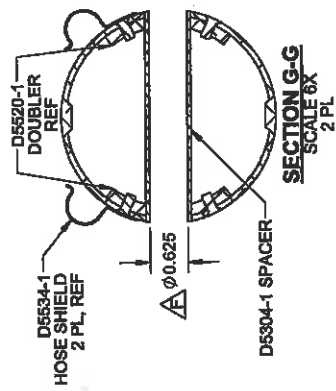
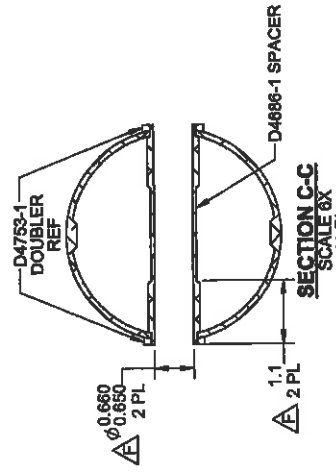
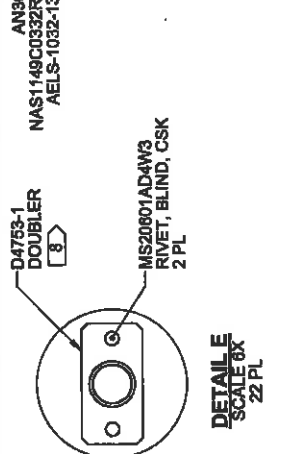
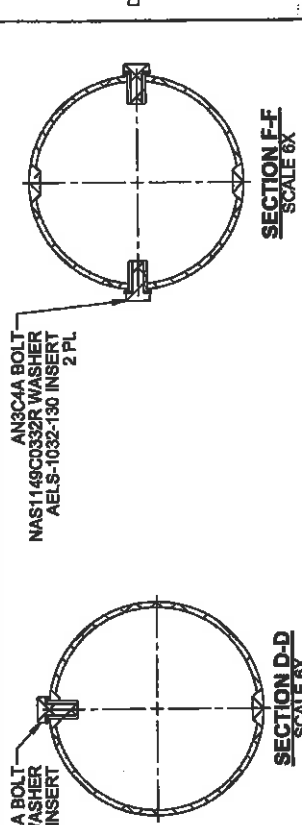
Date: 10/17/19

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				Packaging 3 - 12 - B4B	
				Packaging 3 - 13 - B4B	
				Packaging 3 - 14 - B4B	
				Packaging 3 - 15 - B4B	
				Packaging 3 - 16 - B4B	
				Packaging 3 - 17 - B4B	
				Packaging 3 - 18 - B4B	
				Packaging 3 - 19 - B4B	
				Packaging 3 - 20 - B4B	
				Packaging 3 - 21 - B4B	
				Packaging 3 - 22 - B4B	
				Packaging 3 - 23 - B4B	
				Packaging 3 - 24 - B4B	
				Packaging 3 - 25 - B4B	
				Packaging 3 - 26 - B4B	BF
				Packaging 3 - 27 - B4B	
				Packaging 3 - 28 - B4B	
				Packaging 3 - 29 - B4B	
				Packaging 3 - 30 - B4B	
				Packaging 3 - 31 - B4B	
				Packaging 3 - 32 - B4B	
				Packaging 3 - 33 - B4B	
				Packaging 3 - 34 - B4B	
				Packaging 3 - 35 - B4B	
				Packaging 3 - 36 - B4B	
140 QC 21 - SA	6 pcs	10/23/19	0.00 0.00	QC 21 - SA - 21	OCT 21 2019
				QC 21 - SA - 70	
				QC 21 - SA - 53	
Part Op 110 - Skidtubes - 1- Bend FWD end as per dwg and folio 2- Cut FWD end as per dwg using DT8185 ***VERIFY Descriptions: MESUREMENT**** 120 - QC5- Inspect part completeness to step on W/O 130 - Identify as per dwg & Stock Location: <u>14002</u> 140 - QC21- Final Inspection - Work Order Release					
Job BOM					
Part / Item	Component Name	Quantity	Operation	Container	
D2962-190	Extrusion	6 pcs (1 ea)	110-Skidtubes - Bend - 1	5155 145	
Job Allocations					
Operation	Component Part	Required	Inventory	Allocated	
110-Skidtubes - Bend - 1	D2962-190	6	40	0	
Part Specifications					
Specifications could not be found.					

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QTY	PIN	DESCRIPTION
11	D4766-043	SKIDTUBE SUB ASSY
22	D4686-1	SPACER
1	D4768-045	DOUBLER
2	D6304-1	SKIDTUBE SUB ASSY
3	AELS-1032-130	CROSSBOLT SPACER
3	AN3C4A	INSERT
4	CR1122-3-02.5	BOLT
44	MS20601AD4W3	RIVET
2	MS21048L4	RIVET, BLIND, CSK
3	NAS1149C0332R	NUTPLATE
		WASHER

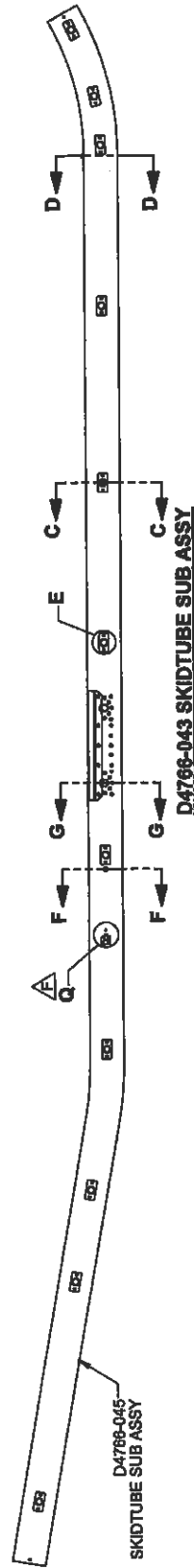


INSTALL D4686-1 SPACER AFTER INSTALLING D4763-1 DOUBLERS AS FOLLOWS:

1. REAM $\phi 0.758$ THRU DOUBLERS AND SKIDTUBE.
2. INSERT D4686-1 SPACER
3. SWAGE TO $\phi 0.660 / 0.650 \times 1.0$ DP EACH SIDE PER DART QSI 002
4. TRIM/GRIND SPACER FLUSH WITH DOUBLER PER QSI 002

INSTALL D5304-1 CROSSBOLT SPACER AFTER INSTALLING D5520-1 DOUBLERS AS FOLLOWS:

1. OPEN PILOT HOLES THRU SKIDTUBE AND DOUBLERS TO $\phi 0.758$
2. INSERT D5304-1 CROSSBOLT SPACER
3. SWAGE TO $\phi 0.570 / 0.565 \times 1.0$ DP EACH SIDE PER DART QSI 002
4. OPEN HOLE THRU SPACER TO $\phi 0.625$



- NOTES:
- 1) MATERIAL: N/A
 - 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
 - 3) FINISH: PRIME (REF 4.2.1.3.3) AND PAINT WHITE PER DART QSI 005 4.2
 - 4) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 5) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 6) BREAK SHARP EDGES: N/A
 - 7) IDENTIFICATION: NONE
 - 8) WEIGHT: 33.9 lbs
 - 9) SEAL FAYING SURFACES USING PROSEAL P/S 860/1422 OR MIL-S-8802 CLASS B2 SEALANT

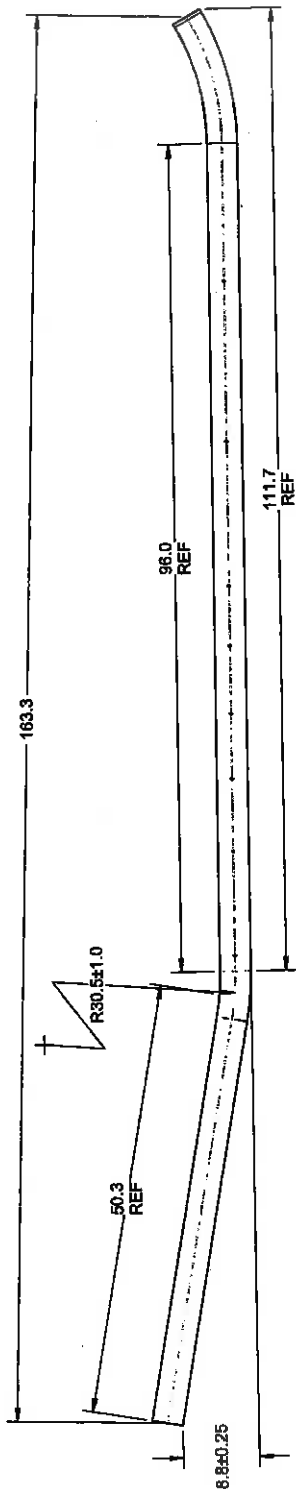
RELEASED
2019 SEP 10 N/O

DESIGN	AP	AP	DART AEROSPACE USA, INC.	
DRAWN	ZF	ZF	HILLSBORO, OR	
CHECKED	MM	MM	DRAWING NO.	REV. F
MFG. APPR.	DD	DD	D4766	SHEET 3 OF 7
APPROVED	NO	NO	TITLE	SCALE
DE APPR.	DS	DS	SKIDTUBE	NTS
DATE	18.11.22			

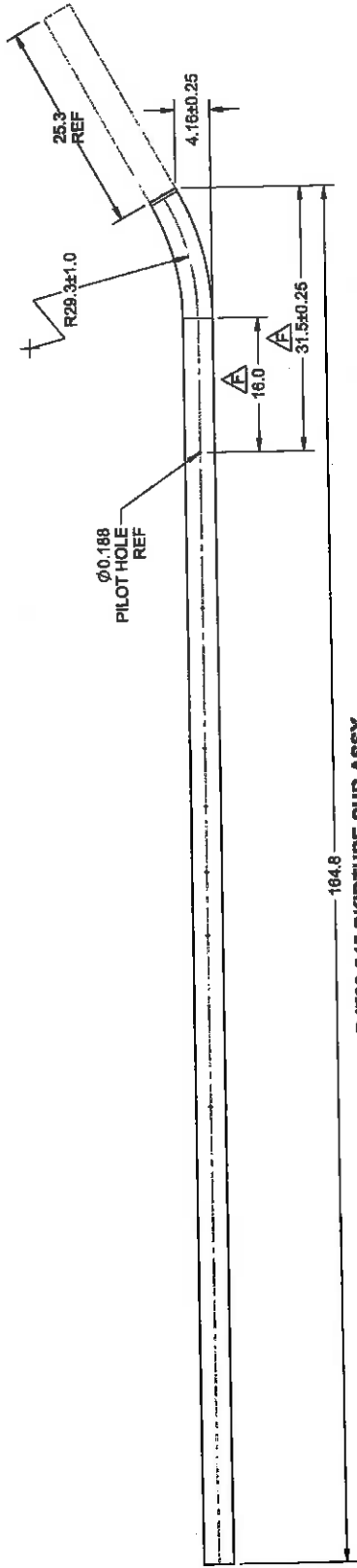
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1 2 3 4 5 6 7 8

D C B A



D4786-045 SKIDTUBE SUB ASSY
(BENDING DETAIL, AFT BEND)



D4786-045 SKIDTUBE SUB ASSY
(BENDING DETAIL, FWD BEND)

APPROVED

RELEASED
2019 SEP 10 10

DESIGN	AP	DART AEROSPACE USA, INC.
DRAWN	ZF	HILLSBORO, OR
CHECKED	MW	DRAWING NO. D4786
MFG. APPR.	DD	REV. F
APPROVED	NO	SHEET 6 OF 7
DE APPR.	DS	SCALE NTS
DATE	18.11.22	TITLE SKIDTUBE

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1 2 3 4 5 6 7 8

D

C

B

A

Ø0.297
TOP SIDE ONLY

149.00

FWD

Ø0.188
THRU
A8 PL

35.38

16.78

190.0

97.90

91.03

83.11

75.56

67.15

55.10

0

D4766-1 SKIDTUBE

RELEASED
2019 SEP 10 10

APPROVED

DESIGN	AP	ZF	DART AEROSPACE USA, INC. HILLSBORO, OR
DRAWN			
CHECKED	MW		DRAWING NO. D4766
MFG. APPR.	DD		REV. F SHEET 7 OF 7
APPROVED	NO		SCALE NTS
DE APPR.	DS		TITLE SKIDTUBE
DATE	18.11.22		CONFIDENTIAL © 2013 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS UNCLASSIFIED AND IS SUPPLIED ON THE SUPPLEMENTARY CONDITION THAT IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.

- NOTES:
- 1) MATERIAL: MAKE FROM D2982-180 EXTRUSION
 - 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI D05 4.1
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: IDENTIFY WITH DART BN PER QSI 044 METHOD 6.4
 - 7) WEIGHT: 19.5 lbs

Entered: _____ Date: _____

WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

Route update only

NCR No. _____

Job: _____ Part No. _____		DISPOSITION Rework ☐ ☐ ☐ Scrap ☐ ☐ ☐ Use-as-is ☐ ☐ ☐		DEPARTMENT/PROCESS Skid-tube ☐ ☐ ☐ ☐ ☐ ☐ Machining ☐ ☐ ☐ ☐ ☐ ☐ Large Fab ☐ ☐ ☐ ☐ ☐ ☐ Cross tube ☐ ☐ ☐ ☐ ☐ ☐ Small Fab ☐ ☐ ☐ ☐ ☐ ☐ Finishing ☐ ☐ ☐ ☐ ☐ ☐ Eng. (Non-AW) ☐ ☐ ☐ ☐ ☐ ☐ Prod. Eng. Coord. ☐ ☐ ☐ ☐ ☐ ☐ Rec/Store/Packaging ☐ ☐ ☐ ☐ ☐ ☐ Engineering ☐ ☐ ☐ ☐ ☐ ☐ Water Jet ☐ ☐ ☐ ☐ ☐ ☐ Supplier ☐ ☐ ☐ ☐ ☐ ☐ Quality ☐ ☐ ☐ ☐ ☐ ☐				MRB (QS1042)	
Date: _____		Sequence #: _____		QTY Affected: _____		Disposition			
Description Work Order Deviation				Completed By					
Lead hand / Supervisor				QC / QA Coordinator					
Root Cause Operator ☐ ☐ ☐ ☐ ☐ ☐ Manufacturing Process ☐ ☐ ☐ ☐ ☐ ☐ Equip/Tooling ☐ ☐ ☐ ☐ ☐ ☐ Handling/Preservation ☐ ☐ ☐ ☐ ☐ ☐ Material ☐ ☐ ☐ ☐ ☐ ☐ Product Improvement ☐ ☐ ☐ ☐ ☐ ☐ Process Improvement ☐ ☐ ☐ ☐ ☐ ☐ Human Factors ☐ ☐ ☐ ☐ ☐ ☐		FAULT CATEGORY Pressure/Forced ☐ ☐ ☐ ☐ ☐ ☐ Bending ☐ ☐ ☐ ☐ ☐ ☐ Crushing ☐ ☐ ☐ ☐ ☐ ☐ Cracks ☐ ☐ ☐ ☐ ☐ ☐ Crimp/Kink/Ripple/Wave/Twist ☐ ☐ ☐ ☐ ☐ ☐ Marks/Chatter ☐ ☐ ☐ ☐ ☐ ☐ Mislabeled ☐ ☐ ☐ ☐ ☐ ☐ Other/Details: _____							
Positioned Wrong ☐ ☐ ☐ ☐ ☐ ☐ Outside Tolerance ☐ ☐ ☐ ☐ ☐ ☐ Drawing ☐ ☐ ☐ ☐ ☐ ☐ Finish ☐ ☐ ☐ ☐ ☐ ☐ Part Lost/Missing ☐ ☐ ☐ ☐ ☐ ☐ Misread ☐ ☐ ☐ ☐ ☐ ☐									